

3.0 SAMPLING AND ANALYTICAL PROCEDURES

3.1 Field Sampling

Collection of oyster, crab, and fish samples was conducted by GERG personnel utilizing three small boats: a 17' Boston Whaler with an 88 hp engine and electric tilt/trim; a 16' Boston Whaler with the same engine package; and the Roman Empire, operated by TAMUG. The field collection crew consisted of three people. All boats used were equipped with all Coast Guard required safety and emergency equipment (life jackets, lights, reserve fuel, first aid kit, etc.) and CB/VHF marine radios.

During sampling expeditions, field crews possessed collection permits issued by the Texas Parks and Wildlife Department. Prior to a collection trip, the enforcement division was notified where and when the teams would be collecting.

The five target species included two macro-invertebrates, Virginia oyster (*Crassostrea virginica*), blue crab (*Callinectes sapidus*), and three vertebrate marine fishes, spotted seatrout (*Cynoscion nebulosus*), black drum (*Pogonias cromis*), and southern flounder (*Paralichthys lethostigma*). Alternate species for each of the target species are listed in Table 3.1. Field teams attempted to collect only specimens within the legal sport-fishing size limit for each species (Table 3.2). However, since there were insufficient numbers and sizes of some fish species, the crews were forced to use the alternate species.

The target species were collected at Morgans Point, Eagle Point, Carancahua Reef and Hanna Reef. These four locations are shown in Figure 2.1. Many locations with probable higher or lower contaminant levels were not sampled. For collection purposes, a sampling site was defined as a location within 1.5 miles of the locations designated in Figure 2.1.

Oysters - Oysters were collected by tong, dredge, or trawl, since all four of the sites were subtidal. Carancahua Reef oysters were obtained by trawling, which yielded over 200 live specimens in one tow. Oysters at Hanna Reef and Eagle Point were obtained by dredge. Oysters were tonged at the Morgans Point site. Twelve oysters were collected at each site. After collection, the oysters were separated from one another by using oyster knives or chipping hammers and then cleaned with a bristle brush. The samples were then bagged and stored on ice until they were returned to the laboratory, where processing was completed.

Crabs - Blue crabs were collected by dredge, trawl, or by gill netting. Crabs were obtained incidentally while collecting oysters or fish. Twelve blue crabs were collected at each site. Carancahua Reef crabs were obtained with a trawl, while those from the other stations were collected with all three types of sampling gear. Crabs were placed in plastic bags and stored alive on ice until they were returned to the laboratory.

Fish - Fish samples were the most difficult to obtain. Initially, a 10' otter trawl was used to collect fish samples. The otter trawl was towed 15 minutes adjacent

to the main channel and parallel to the channel. Catches were primarily juvenile fish, penaeid shrimp and blue crabs. This sampling gear was not appropriate since it could not be towed fast enough to capture the size class of fish required for this study. After the first sampling period trawling was discarded in favor of gill netting.

Gill netting was conducted during four field periods (Table 2.1). Two sampling trips were conducted during June 1990, one during July-August 1990, and one during September 1990. Gill netting was the only collection method that could be used at all stations. Gill nets used in this study ranged from 100 to 600' long and were 6' deep with sections of 1, 2, or 3" square mesh. The nets were constructed of multifilament nylon or monofilament hung from a foam core float line and weighted lead core rope. Gill nets were originally set in the evening and allowed to fish until the next morning. This method was changed when it resulted in low catch rates and high fish mortality. The team later modified the procedure and began setting the nets and allowing them to fish for approximately 2 hours. This method reduced fish mortality and allowed the team to discard the non-target fish and have live fish for bile analysis.

On June 6, 7, and 8, two crews conducted gill netting in Galveston Bay. Salinities in the Bay were still abnormal, ranging from 4 ppt at Morgans Point in the upper Bay to 20 ppt at Carancahua Reef in West Bay. Fishing success was mixed. The number and species of the target fish caught at each site were: Hanna Reef - 9 black drum; Carancahua Reef - 2 spotted seatrout, 3 southern flounder, 10 hardhead catfish (*Arius felis*), 4 black drum (small); Morgans Point - 6 hardhead catfish, 1 red drum (*Sciaenops ocellatus*), 2 southern flounder; and Eagle Point - 2 sand seatrout (*Cynoscion arenarius*), 2 southern flounder, 10 hardhead catfish. The gill netting for this field effort was terminated.

Sampling on June 26-27 was unsuccessful due to the extremely low salinities, and was terminated. No target species were caught.

A third attempt at gill netting was conducted on July 30 through August 3, 1990. Two crews conducted gill netting at all four of the sites. Gill netting was very successful at three of the stations: however, due to an oil spill near Eagle Point, fishing was not good and the fish that were caught were not considered acceptable for the GBNEP program because of the nearby oil slicks. Results of the gill netting are as follows: Hanna Reef - 11 spotted seatrout, 13 southern flounder, 10 hardhead catfish, 4 black drum, and 4 red drum; Carancahua Reef - 10 southern flounder, 3 hardhead catfish, 4 black drum, and 7 red drum; Morgans Point - 3 southern flounder, 11 hardhead catfish, 6 black drum, and 8 red drum; and Eagle Point - 1 spotted seatrout, 2 southern flounder, 10 hardhead catfish, 2 black drum, and 2 red drum.

The final sampling trip was conducted during September 4-6, 1990. This trip was to obtain fish at Eagle Point. Gill netting and hook-and-line fishing were both used during this trip. Fish specimens collected on this trip included: 4 black drum, 3 hardhead catfish, 4 southern flounder, 1 red drum, 5 spotted seatrout,

and 3 sheepshead (*Archosargus probatocephalus*). A complete list of fish with length and weight data is provided in Table 3.3.

In preparation for storing the samples, ice chests were scrubbed with detergent and then rinsed with tap water. After completing a gill net set, the fish were weighed, measured for length, and inspected for lesions or deformities. The gallbladder and liver were then removed. The remaining fish tissue, gallbladder, and liver were packaged separately. The fish tissue was wrapped in clean, combusted, heavy duty aluminum foil, dull side in. The foil was fiber taped and labeled as to collection site, date of collection, and species, then placed in the ice chests. Only one fish was wrapped in each foil sheet. Field notes (i.e., species, length, weight and description of the site) were recorded.

After field processing, the samples were immediately stored on ice until the day's sampling was complete. The samples were then taken to an electric freezer and stored frozen until the entire freezer was transported back to the lab. All further sample processing was performed in the laboratory under clean room conditions.

3.2 Analytical Procedures

The analytical procedures that were used for GBNEP are detailed in Appendix C. The SOPs listed and attached, with the exception of SOP-ST17, are the methods utilized for the NOAA National Status and Trends Program and the U.S. Fish and Wildlife Service trace organic analytical program. All have undergone extensive verification and intercalibration. They are high-quality analytical procedures that produce much lower detection limits for PAHs, pesticides and PCBs than do standard EPA methods employing full-scan GC/MS. Full-scan GC/MS using SOP-ST17 was used to screen for base/neutral priority pollutants not determined by SOP-ST03 and SOP-ST04.

GERG decided to use this analytical approach because the available information indicated that the pesticides, PCBs and PAH, determined by their methods are the ones most frequently found in studies of coastal Texas water using EPA priority pollutant methods. For example, analyses of whole fish and crabs for priority pollutants in Sabine/Neches Tidal River and Corpus Christi Bay/Inner Harbor detected only 10 of 135 and 9 of 135 priority pollutants, respectively (Davis, 1989). Most of these were trace metals and the only organics detected were ppDDT and ppDDE. GERG therefore decided that more useful data would be produced by using methods with lower detection limits. This was approved by the Management Conference and EPA Region 6.

Trace elements of interest in this study are those on the EPA Priority Pollutant List (PPL) which include: antimony (Sb), arsenic (As), beryllium (Be), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), mercury (Hg), nickel (Ni), selenium (Se), silver (Ag), thallium (Tl) and zinc (Zn). The concentrations of these elements were determined in crab, oyster, and fish tissue samples with the exception of Be, Sb and Tl. Concentrations of Sb, Be and Tl in marine organisms as summarized in Eisler (1981) are generally below detection limits anticipated for the current

study and do not justify the additional analytical effort required. In EPA studies of aquatic organisms, the concentrations of these elements are generally in the low parts per billion range. This laboratory has analyzed 297 pooled oyster samples for Sb and Tl (representing 5940 individual oysters) as part of the NOAA National Status and Trends Mussel Watch Program. Almost all samples were less than 0.2 ppm Sb dry weight and less than 0.1 ppm Tl dry weight. Beryllium, Sb and Tl were added to the PPL because of concerns over human health effects from workplace exposure and not because of any accumulation in marine ecosystems.

GERG SOPs to be utilized on this project include the following:

TRACE ORGANICS

SOP-ST01	Extraction of Biological Tissues for Trace Organic Analysis
SOP-ST03	Quantitative Determination of Polynuclear Aromatic Hydrocarbons by Gas Chromatography/Mass Spectrometry (GC/MS) - Selected Ion Monitoring (SIM) Mode
SOP-ST04	Quantitative Determination of Chlorinated Hydrocarbons
SOP-ST17	Screening and Analysis of Environmental Samples by Full Scan Gas Chromatography/Mass Spectrometry

TRACE METALS

SOP-ST07	Digestion of Biological Materials for Trace Metal Analysis
SOP-ST09	Analysis of Trace Metals by Flame Atomic Absorption
SOP-ST10	Analysis of Trace Metals by Graphite Furnace Atomic Absorption
SOP-ST11	Analysis of Mercury by Cold-Vapor Atomic Absorption

Table 3.1 Target Species and Alternates.

Target Species	Alternate Species	
<i>Crassostrea virginica</i>	none	
<i>Callinectes sapidus</i>	none	
<i>Cynoscion nebulosus</i>	<i>Cynoscion nothus</i>	(silver seatrout)
	<i>C. arenarius</i>	(sand seatrout)
<i>Pogonius cromis</i>	<i>Sciaenops ocellatus</i>	(red drum)
<i>Paralichthys lethostigma</i>	<i>Trinectes maculatus</i>	(hogchoker)
	<i>Ancylopsetta quadrocellata</i>	(ocellated flounder)

Table 3.2 Target Species and Alternates Legal Sport-Fishing Size Limitations.

Target Species or Alternate Species*		Length in Inches
<i>Crassostrea virginica</i>	(Virginia oyster)	3 - No Limit
<i>Callinectes sapidus</i>	(blue crab)	5 - No Limit
<i>Cynoscion nebulosus</i>	(spotted seatrout)	14 - No Limit
* <i>Cynoscion nothus</i>	(silver seatrout)	
* <i>C. arenarius</i>	(sand seatrout)	
<i>Pogonius cromis</i>	(black drum)	14 - 30
* <i>Sciaenops ocellatus</i>	(red drum)	20 - 28
<i>Paralichthys lethostigma</i>	(southern flounder)	12 - No Limit
* <i>P. albigutta</i>	(gulf flounder)	12 - No Limit
* <i>Ancylopsetta quadrocellata</i>	(ocellated flounder)	12 - No Limit

Table 3.3 Fish Specimen Caught During the Summer of 1990 for GBNEP

SITE	SPECIMEN #	SPECIES	LENGTH (cm)	WEIGHT (gms)	DATE SAMPLED
Hannah Reef	GBHR-SF-23	southern flounder	44.0	363.0	Aug. 1, 1990
Hannah Reef	GBHR-SM-24	spanish mackerel	28.0	NA	Aug. 1, 1990
Hannah Reef	GBHR-BD-25A	black drum	37.0	341.0	Aug. 1, 1990
Hannah Reef	GBHR-BD-26A	black drum	36.5	272.0	Aug. 1, 1990
Hannah Reef	GBHR-RF-27A	red drum	31.0	NA	Aug. 1, 1990
Hannah Reef	GBHR-RF-28A	red drum	55.5	1180.0	Aug. 1, 1990
Hannah Reef	GBHR-BD-29A	black drum	37.2	41.0	Aug. 1, 1990
Hannah Reef	GBHR-SF-30A	southern flounder	40.0	454.0	Aug. 1, 1990
Hannah Reef	GBHR-SF-31A	southern flounder	33.3	227.0	Aug. 1, 1990
Hannah Reef	GBHR-SF-32A	southern flounder	40.5	454.0	Aug. 1, 1990
Hannah Reef	GBHR-BD-33A	black drum	37.2	568.0	Aug. 1, 1990
Hannah Reef	GBHR-SF-34A	southern flounder	36.0	136.0	Aug. 1, 1990
Hannah Reef	GBHR-SF-35A	southern flounder	51.3	1362.0	Aug. 1, 1990
Hannah Reef	GBHR-SF-36A	southern flounder	44.5	726.0	Aug. 1, 1990
Hannah Reef	GBHR-RF-37A	red drum	56.4	2043.0	Aug. 1, 1990
Hannah Reef	GBHR-RF-38A	red drum	55.0	1271.0	Aug. 1, 1990
Hannah Reef	GBHR-SF-39A	southern flounder	41.0	568.0	Aug. 1, 1990
Hannah Reef	GBHR-SF-40A	southern flounder	34.0	182.0	Aug. 1, 1990
Hannah Reef	GBHR-SF-41A	southern flounder	35.9	341.0	Aug. 1, 1990
Hannah Reef	GBHR-SF-42A	southern flounder	41.0	545.0	Aug. 1, 1990
Hannah Reef	GBHR-SPT-01	spotted seatrout	59.0	1816.0	July 31, 1990
Hannah Reef	GBHR-SPT-02	spotted seatrout	48.7	1135.0	July 31, 1990
Hannah Reef	GBHR-SPT-03	spotted seatrout	50.0	1589.0	July 31, 1990
Hannah Reef	GBHR-SPT-04	spotted seatrout	40.6	795.0	July 31, 1990
Hannah Reef	GBHR-HH-05	hardhead catfish	35.6	636.0	July 31, 1990
Hannah Reef	GBHR-HH-06	hardhead catfish	33.0	341.0	July 31, 1990
Hannah Reef	GBHR-HH-07	hardhead catfish	30.5	341.0	July 31, 1990
Hannah Reef	GBHR-HH-08	hardhead catfish	25.4	170.0	July 31, 1990
Hannah Reef	GBHR-HH-09	hardhead catfish	36.8	454.0	July 31, 1990
Hannah Reef	GBHR-HH-10	hardhead catfish	38.1	454.0	July 31, 1990
Hannah Reef	GBHR-HH-11	hardhead catfish	35.6	312.0	July 31, 1990
Hannah Reef	GBHR-HH-12	hardhead catfish	35.6	397.0	July 31, 1990
Hannah Reef	GBHR-HH-13	hardhead catfish	30.5	284.0	July 31, 1990
Hannah Reef	GBHR-HH-14	hardhead catfish	35.6	454.0	July 31, 1990
Hannah Reef	GBHR-FL-15	southern flounder	24.1	227.0	July 31, 1990
Hannah Reef	GBHR-SPT-16	spotted seatrout	50.8	908.0	July 31, 1990
Hannah Reef	GBHR-SPT-17	spotted seatrout	61.0	1930.0	July 31, 1990
Hannah Reef	GBHR-SPT-18	spotted seatrout	67.3	2270.0	July 31, 1990
Hannah Reef	GBHR-SPT-19	spotted seatrout	45.7	795.0	July 31, 1990
Hannah Reef	GBHR-SPT-20	spotted seatrout	54.6	1135.0	July 31, 1990
Hannah Reef	GBHR-Spt-21	spotted seatrout	48.9	965.0	July 31, 1990
Hannah Reef	GBHR-SPT-22	spotted seatrout	47.6	671.0	July 31, 1990
Hannah Reef	GBHR-FL-25B	southern flounder	24.1	142.0	Aug. 1, 1990
Hannah Reef	GBHR-CR-26B	Atlantic croaker	30.5	227.0	Aug. 1, 1990
Hannah Reef	GBHR-CR-27B	Atlantic croaker	27.9	227.0	Aug. 1, 1990
Eagle Point	GBEP-BD-01A	black drum	43.0	NA	Aug. 3, 1990
Eagle Point	GBEP-SF-02A	southern flounder	36.0	227.0	Aug. 3, 1990
Eagle Point	GBEP-BD-03A	black drum	37.0	NA	Aug. 3, 1990
Eagle Point	GBEP-FL-60B	southern flounder	38.1	397.0	Aug. 3, 1990
Eagle Point	GBEP-RF-61B	red drum	38.1	454.0	Aug. 3, 1990
Eagle Point	GBEP-RF-62B	red drum	35.6	454.0	Aug. 3, 1990
Eagle Point	GBEP-BD-63B	black drum	26.7	114.0	Aug. 3, 1990

Table 3.3 continued

SITE	SPECIMEN #	SPECIES	LENGTH (cm)	WEIGHT (gms)	DATE SAMPLED
Eagle Point	GBEP-BD-64B	black drum	30.5	142.0	Aug. 3, 1990
Eagle Point	GBEP-JK-66B	crevalle jack	96.5	9988.0	Aug. 3, 1990
Eagle Point	GBEP-SPT-67B	spotted seatrout	43.2	681.0	Aug. 3, 1990
Morgans Point	GBMP-RF-01A	red drum	56.0	1589.0	Aug. 2, 1990
Morgans Point	GBMP-HH-02A	hardhead catfish	34.5	NA	Aug. 2, 1990
Morgans Point	GBMP-HH-03A	hardhead catfish	28.0	NA	Aug. 2, 1990
Morgans Point	GBMP-HH-04A	hardhead catfish	28.5	NA	Aug. 2, 1990
Morgans Point	GBMP-HH-05A	hardhead catfish	27.0	NA	Aug. 2, 1990
Morgans Point	GBMP-HH-06A	hardhead catfish	42.0	545.0	Aug. 2, 1990
Morgans Point	GBMP-BD-07A	black drum	34.5	199.0	Aug. 2, 1990
Morgans Point	GBMP-RF-08A	red drum	56.5	1362.0	Aug. 2, 1990
Morgans Point	GBMP-BD-09A	black drum	40.0	454.0	Aug. 2, 1990
Morgans Point	GBMP-SF-10A	southern flounder	35.5	272.0	Aug. 2, 1990
Morgans Point	GBMP-BD-11A	black drum	44.0	726.0	Aug. 2, 1990
Morgans Point	GBMP-BD-12A	black drum	31.0	136.0	Aug. 2, 1990
Morgans Point	GBMP-RF-13A	red drum	57.5	1634.0	Aug. 2, 1990
Morgans Point	GBMP-RF-14A	red drum	64.0	2361.0	Aug. 2, 1990
Morgans Point	GBMP-RF-15A	red drum	54.5	3069.0	Aug. 2, 1990
Morgans Point	GBMP-RF-16A	red drum	49.5	999.0	Aug. 2, 1990
Morgans Point	GBMP-BD-17A	black drum	42.0	726.0	Aug. 2, 1990
Morgans Point	GBMP-SF-18A	southern flounder	36.0	227.0	Aug. 2, 1990
Morgans Point	GBMP-SF-19A	southern flounder	41.0	258.0	Aug. 2, 1990
Morgans Point	GBMP-RF-20A	red drum	46.0	772.0	Aug. 2, 1990
Morgans Point	GBMP-MU-50B	striped mullet	43.2	681.0	Aug. 2, 1990
Morgans Point	GBMP-HH-51B	hardhead catfish	35.6	341.0	Aug. 2, 1990
Morgans Point	GBMP-HH-52B	hardhead catfish	35.6	341.0	Aug. 2, 1990
Morgans Point	GBMP-HH-53B	hardhead catfish	33.2	284.0	Aug. 2, 1990
Morgans Point	GBMP-HH-54B	hardhead catfish	33.2	341.0	Aug. 2, 1990
Morgans Point	GBMP-HH-55B	hardhead catfish	35.6	341.0	Aug. 2, 1990
Morgans Point	GBMP-RF-56B	red drum	54.6	1589.0	Aug. 2, 1990
Morgans Point	GBMP-MU-57B	striped mullet	35.6	454.0	Aug. 2, 1990
Morgans Point	GBMP-HH-58B	hardhead catfish	31.8	227.0	Aug. 2, 1990
Morgans Point	GBMP-BD-59B	black drum	30.5	341.0	Aug. 2, 1990
Carancahua Reef	GBCR-GT-01	gaftopsail catfish.	46.0	1044.0	July. 30, 1990
Carancahua Reef	GBCR-SF-02	southern flounder	41.0	636.0	July. 30, 1990
Carancahua Reef	GBCR-BD-03	black drum	37.0	409.0	July. 30, 1990
Carancahua Reef	GBCR-SF-04	southern flounder	36.5	272.0	July. 30, 1990
Carancahua Reef	GBCR-HH-05	hardhead catfish	34.0	454.0	July. 30, 1990
Carancahua Reef	GBCR-HH-06	hardhead catfish	29.0	227.0	July. 30, 1990
Carancahua Reef	GBCR-HH-07	hardhead catfish	28.5	NA	July. 30, 1990
Carancahua Reef	GBCR-RF-08	red drum	57.0	1407.0	July. 30, 1990
Carancahua reef	GBCR-RF-09	red drum	56.0	1407.0	July. 30, 1990
Carancahua Reef	GBCR-RF-10	red drum	55.5	1271.0	July. 30, 1990
Carancahua Reef	GBCR-RF-11	red drum	58.0	1453.0	July. 30, 1990
Carancahua Reef	GBCR-RF-12	red drum	59.0	1634.0	July. 31, 1990
Carancahua Reef	GBCR-BD-13	black drum	41.0	545.0	July. 31, 1990
Carancahua Reef	GBCR-SF-14	southern flounder	37.5	272.0	July. 31, 1990
Carancahua Reef	GBCR-SF-15	southern flounder	35.5	272.0	July. 31, 1990
Carancahua Reef	GBCR-SF-16	southern flounder	38.0	272.0	July. 31, 1990
Carancahua Reef	GBCR-RF-17	red drum	62.0	2088.0	July. 31, 1990
Carancahua Reef	GBCR-SF-18	southern flounder	36.0	318.0	July. 31, 1990
Carancahua Reef	GBCR-SF-19	southern flounder	43.5	726.0	July. 31, 1990

Table 3.3 continued

SITE	SPECIMEN #	SPECIES	LENGTH (cm)	WEIGHT (gms)	DATE SAMPLED
Carancahua Reef	GBCR-SK-20	shark	65.5	1498.0	July. 31, 1990
Carancahua Reef	GBCR-SF-21	southern flounder	37.0	227.0	July. 31, 1990
Carancahua Reef	GBCR-SF-22	southern flounder	36.5	272.0	July. 31, 1990
Carancahua Reef	GBCR-SF-23	southern flounder	41.0	590.0	July. 31, 1990
Carancahua Reef	GBCR-BD-24	black drum	39.0	363.0	July. 31, 1990
Carancahua Reef	GBCR-BD-25	black drum	36.0	272.0	July. 31, 1990
Carancahua Reef	GBCR-SH-26	sheepshead	45.6	1226.0	July. 31, 1990
Carancahua Reef	GBCR-RF-27	red drum	57.0	1452.0	July. 31, 1990
Eagle Point	GBEP-BD-01	black drum	34.0	409.0	Sept. 4, 1990
Eagle Point	GBEP-BD-02	black drum	35.5	545.0	Sept. 4, 1990
Eagle Point	GBEP-BD-03	black drum	40.0	568.0	Sept. 4, 1990
Eagle Point	GBEP-BD-04	black drum	38.0	454.0	Sept. 4, 1990
Eagle Point	GBEP-HH-05	hardhead catfish	37.5	341.0	Sept. 4, 1990
Eagle Point	GBEP-SF-06	southern flounder	38.0	454.0	Sept. 4, 1990
Eagle Point	GBEP-HH-07	hardhead catfish	48.0	1135.0	Sept. 4, 1990
Eagle Point	GBEP-HH-08	hardhead catfish	47.0	1044.0	Sept. 4, 1990
Eagle Point	GBEP-SF-09	southern flounder	40.0	454.0	Sept. 4, 1990
Eagle Point	GBEP-RF-10	red fish	39.0	341.0	Sept. 4, 1990
Eagle Point	GBEP-SF-11	southern flounder	39.0	454.0	Sept. 4, 1990
Eagle Point	GBEP-SF-12	southern flounder	39.0	454.0	Sept. 4, 1990
Eagle Point	GBEP-ST-13	spotted seatrout	42.0	454.0	Sept. 4, 1990
Eagle Point	GBEP-ST-14	spotted seatrout	32.0	227.0	Sept. 4, 1990
Eagle Point	GBEP-ST-15	spotted seatrout	41.0	409.0	Sept. 4, 1990
Eagle Point	GBEP-ST-16	spotted seatrout	31.0	227.0	Sept. 4, 1990
Eagle Point	GBEP-ST-17	spotted seatrout	38.0	363.0	Sept. 4, 1990
Eagle Point	GBEP-SH-01	sheepshead	33.3	354.0	Sept. 4, 1990
Eagle Point	GBEP-SH-02	sheepshead	48.0	1693.0	Sept. 4, 1990
Eagle Point	GBEP-SH-03	sheepshead	46.0	1362.0	Sept. 4, 1990